NEKRASOV, F.M.

Initial stage of perturbations in a plasma situated in an external magnetic field. Zhur. eksp. i teor. fiz. 43 no.2:433-438 Ag '62. (MIRA 16:6)

(Plasma (Ionized gases)) (Magnetic fields)

L 18368-63 EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/
ACCESSION NR: AP3003943 IJP(C)/SSD Pab-4/Pi-4/ S/0057/63/033/007/0769/0775
Po-4/Pz-4 AT

AUTHOR: Nokrasov, F.M.

TITLE: Class of non-linear solutions of the kinetic equation without the collision integral

SOURCE: Zhurnal tekhnicheskoy fiziki, v.33, no.7, 1963, 769-775

TOPIC TAGS: plasma, kinetic equation

ABSTRACT: Some particular one-dimensional steady state self-consistent solutions are obtained of Maxwell's equations and the kinetic equation (without the collision integral) for a fully ionized plasma in a uniform external magnetic field. Only such solutions are sought for which all quantities that vary in space and time are functions only of the phase of plane waves propagating in the direction of the applied field. The solutions are further restricted by the assumption that the ion and electron distribution functions can be expressed as products in which one factor depends only on the longitudinal velocity (the velocity in the direction of the applied field) and the other factor depends only on the remaining variables (the transverse velocities and the phase). This leads at once to a Maxwellian

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ACCESSION NR: AP3003943

distribution of the longitudinal velocities. Four cases are distinguished, depending on whether the applied field or the phase velocity of the waves in the rest system of the plasma does or does not vanish. For the case that neither the phase velocity nor the applied field vanishes, a solution is obtained that represents a particular case of the propagation of Alfven waves. The expression obtained for the phase velocity as a function of the applied field and the temperature anisotropies (the difference between the longitudinal and the transverse temperatures) reduces the usual expression for the velocity of Alfven waves for the case of low phase velocity and small temperature anisotropy. For the case that both the phase velocity in the rest system and the applied field vanish, several solutions are obtained. In one of these the plasma is confined to a finite layer by pinch forces. "In conclusion, the author thanks Ya.B.Faynberg for suggesting the topic." Orig. art. has: 45 formulas.

ASSOCIATION: none

SUBMITTED: 22July62 DATE ACQ: 07Aug63 ENCL: 00

SUB CODE: PH NO REF SOV: 009 OTHER: 001

Card 2/2

L 21760-66 EWT(1)/ETC(f)/EWG(m)/EPF(n)-2 IJP(c) AT

ACC NR: AP6004698 SOURCE CODE: UR/0057/66/036/001/0191/0193

70
13

AUTHOR: Kostyukova, Yu.S.; Nekrasov, F.M.

ORG: None

21,44,55

TITLE: On the linear theory of the excitation of oscillations in a plasma by a charged particle beam

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 191-193

TOPIC TAGS: particle beam, electron beam, plasma beam interaction, plasma oscillation, plasma electron temperature, plasma heating, Maxwell equation, charged particle

ABSTRACT: In this "short communication" the authors briefly discuss the initial stages of the excitation by a charge particle beam of oscillations in a plasma that is of limited extent in the direction of the beam and is located in a uniform magnetic field. The discussion is based on Maxwell's equations and the kinetic equation without collision integral and is limited to times short compared with that required by a plasma particle, owing to its thermal motion, to traverse a distance equal to the wavelength of the excited oscillations. The kinetic equation is first solved by the method of characteristics, and temperature dependent terms are dropped from the resulting expressions for the charge and current densities. After substitution of these expressions for the charge and current densities into Maxwell's equations, the equations are

UDC: 533.9

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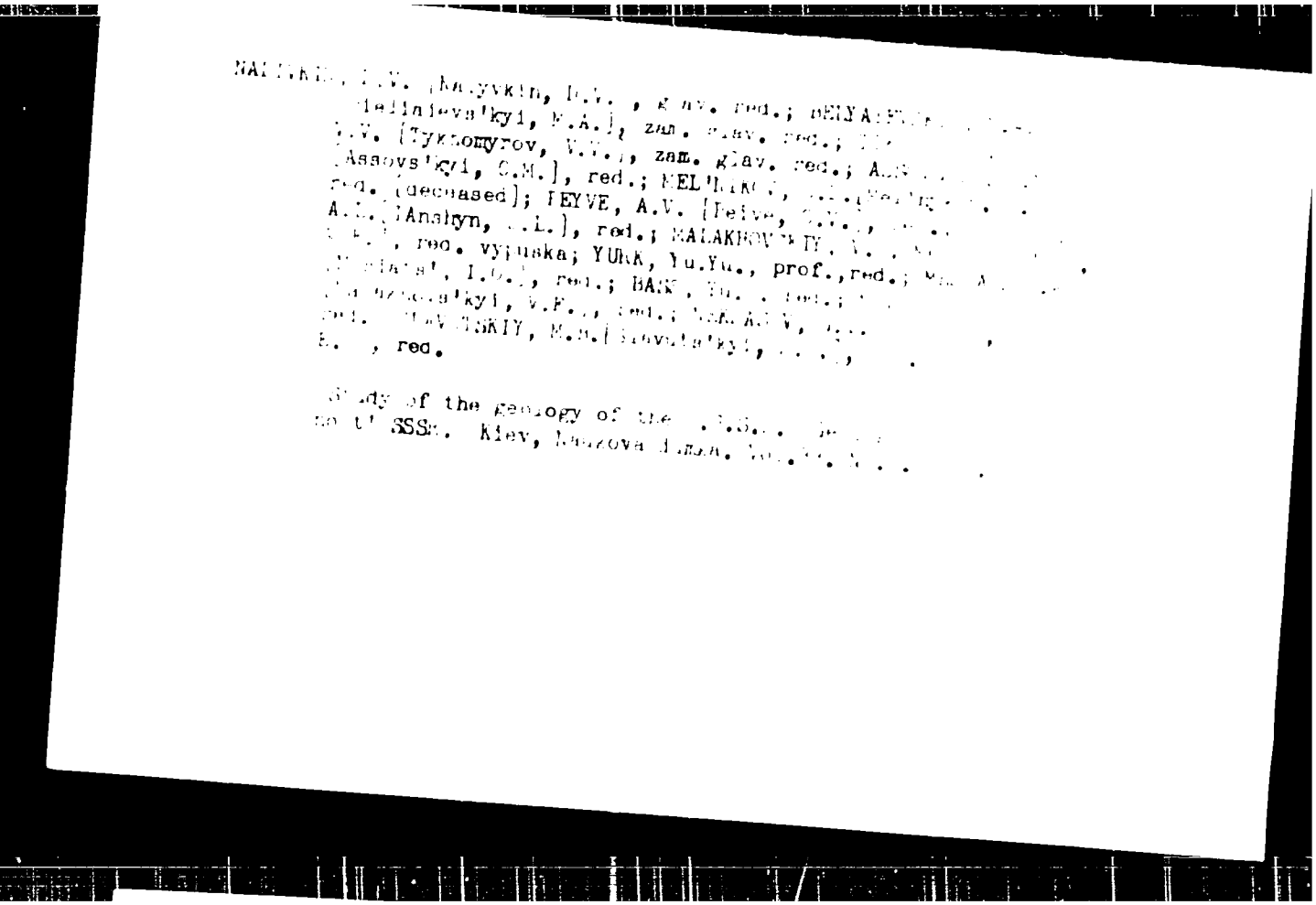
subjected to a Laplace transformation and their solutions are discussed. It is found that resonant excitation with linear increase of amplitude with time can occur at certain frequencies depending on the system and the initial disturbance. An equation is derived for the resonant frequencies in excitation by an electron beam of the extraordinary wave propagating parallel to the external magnetic field in an electronic plasma. The excitation of these waves is due to the component of the beam velocity perpendicular to the magnetic field. It is suggested that heating of the plasma electrons can result from such excitation of the extraordinary wave and its subsequent absorption as a result of the thermal motions of the electrons. Orig. art. has: 9 formulas.

SUB CODE: 20/ SUBM DATE: 24May65/ ORIG REF: 007/ OTH REF: 000



MAL[illegible], I.V. [Malyvkin, I.V., ... red.; BELYA[illegible]
[Belinievs'kyi, V.A.], zam. ... red.; [illegible]
[illegible].V. [Tykhomyrov, V.V.], zam. ... red.; A.[illegible]
[Assovs'kyi, O.M.], red.; MEL'[illegible], ... [illegible]
red. [deceased]; PEYVE, A.V. [Peive, ...], ...
A.[illegible] [Analyn, ...L.], red.; MALAKHOV'KIY, ...
[illegible], red. vypuska; YURK, Yu.Yu., prof., red.; [illegible]
[illegible]'kyi, I.[illegible], red.; BAIK, Yu. ..., red.; [illegible]
[illegible]'kyi, V.F., red.; [illegible]
red. [illegible]; [illegible]TSKIY, M.M. [Slovats'kyi, ...],
[illegible], red.

[illegible]dy of the geology of the [illegible]
no U[illegible]SSR. Kiev, Naukova dumka, [illegible]

AUTHOR: Nekrasov, G.M., Engineer

TITLE: **Burning of Brown** C al of Nazarovo
(Szhiganiye burykh nazarovskikh ugley)

PERIODICAL: Energetik, 1958, Nr 2, p 1- (USSR)

ABSTRACT: This article is a description of ... qualities, as well as of the ... brown coal mined at Nazarovo ... Krasnoyarsk. **The Sorskaya thermoelectric power plant** of Sor' has been ... in the ... 1954. The plant has 6 vertical ... steam boilers of the TI-C/ZO type ... output of 20 t/h each at 43 atm ... 450°C temperature. Coal is ... combustion chambers, which are ... shielded. Every boiler has ... mills of the SHMA 1,000/70? type with ... capacity. The plant's mills are ... beaters produced by a factory in K...

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Burning of Brown C[illegible] at Nazarovo

[illegible] work for 30C to [illegible] repair. Th[illegible] steel benders of "Sibtyazhmash" production, need additional [illegible] ration, are more expensive, [illegible] is only 30C to 4CO hours. Th[illegible] casing installed in the plant is made [illegible] St.3 steel plate 10 mm thick with [illegible] of stalinite, and stands a year [illegible] ruited work. Some of the Nazar[illegible] vantages: it is cheap; it [illegible] ash, or much slag. Some disadvant[illegible]

Card 2/[illegible]

Burning of Brown

NEKRASOV, G.M., inzh.

Rational diagram for automatic control of the feed and temperature of steam superheaters in medium-pressure boilers. Elek.sta. 30 no.1:88 Ja '59. (MIRA 12:3)

(Superheaters) (Automatic control)

NEKRASOV, G., gornyy dispetcher

Traveling across the Maritime Territory. Mast.ugl. 9 no.6:26-27 Je '60. (MIRA 13:7)

1. Shakhta No.8, tresta Artemugol', Primorskogo kraya.
(Maritime Territory--Description and travel)

NEKRASOV, G., gornyy dispetcher; KILEPU, A.; DEMINA, A.

Miners and their lodging house. Sov.shakht. 10 no.8:34-35 Ag '61. (MIRA 14:8)

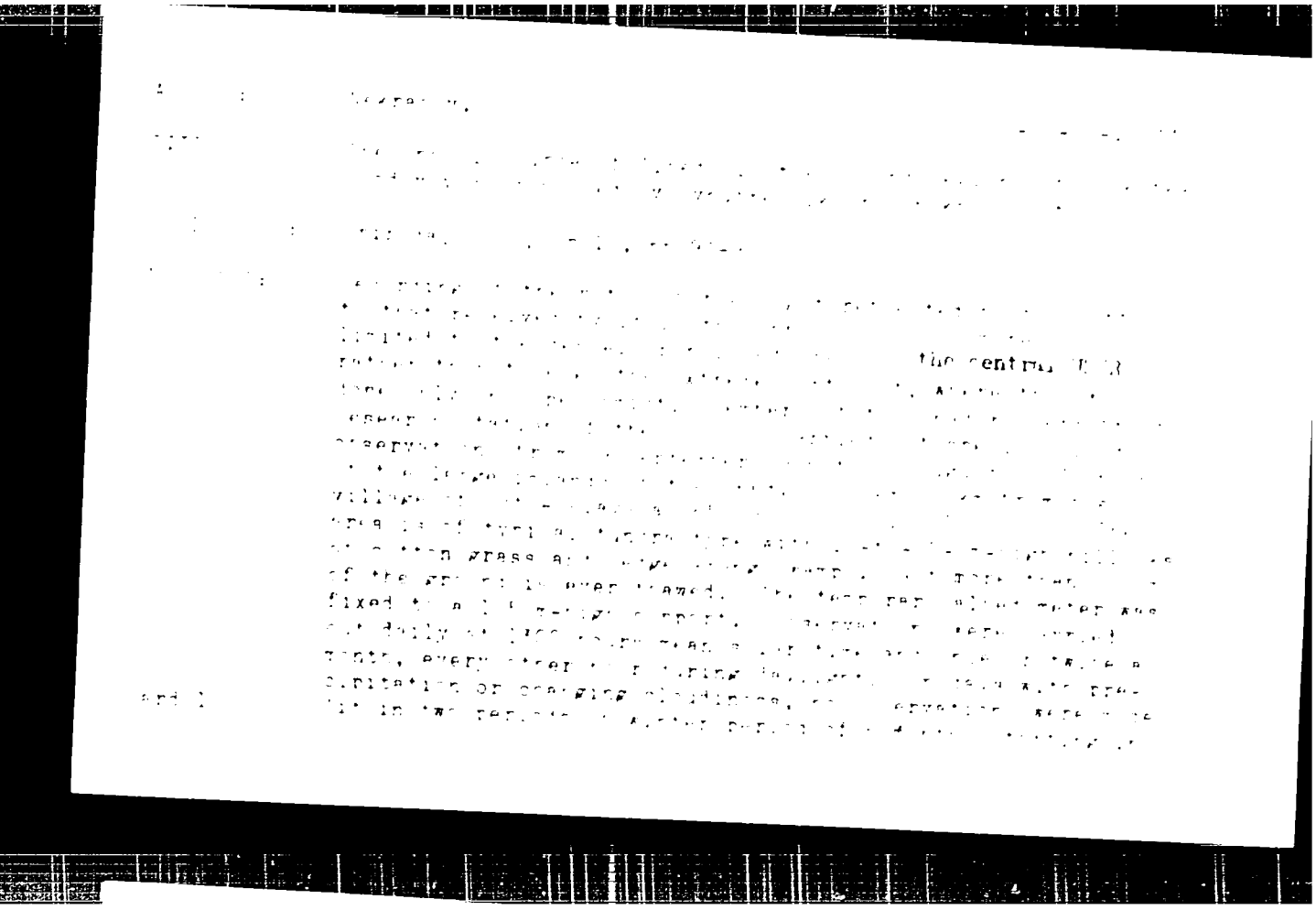
1. Shakhta No.8 kombinata Primorskugol' (for Nekrasov).
2. Komendant obshcheshitiya shakhtoprokhodcheskogo upravleniya No.2, Popasnyanskiy rayon, Luganskaya oblast' (for Demina).
3. Mashinist vodootliva shakhty imeni Stalina v Luganskoy oblast (for Kilepu).

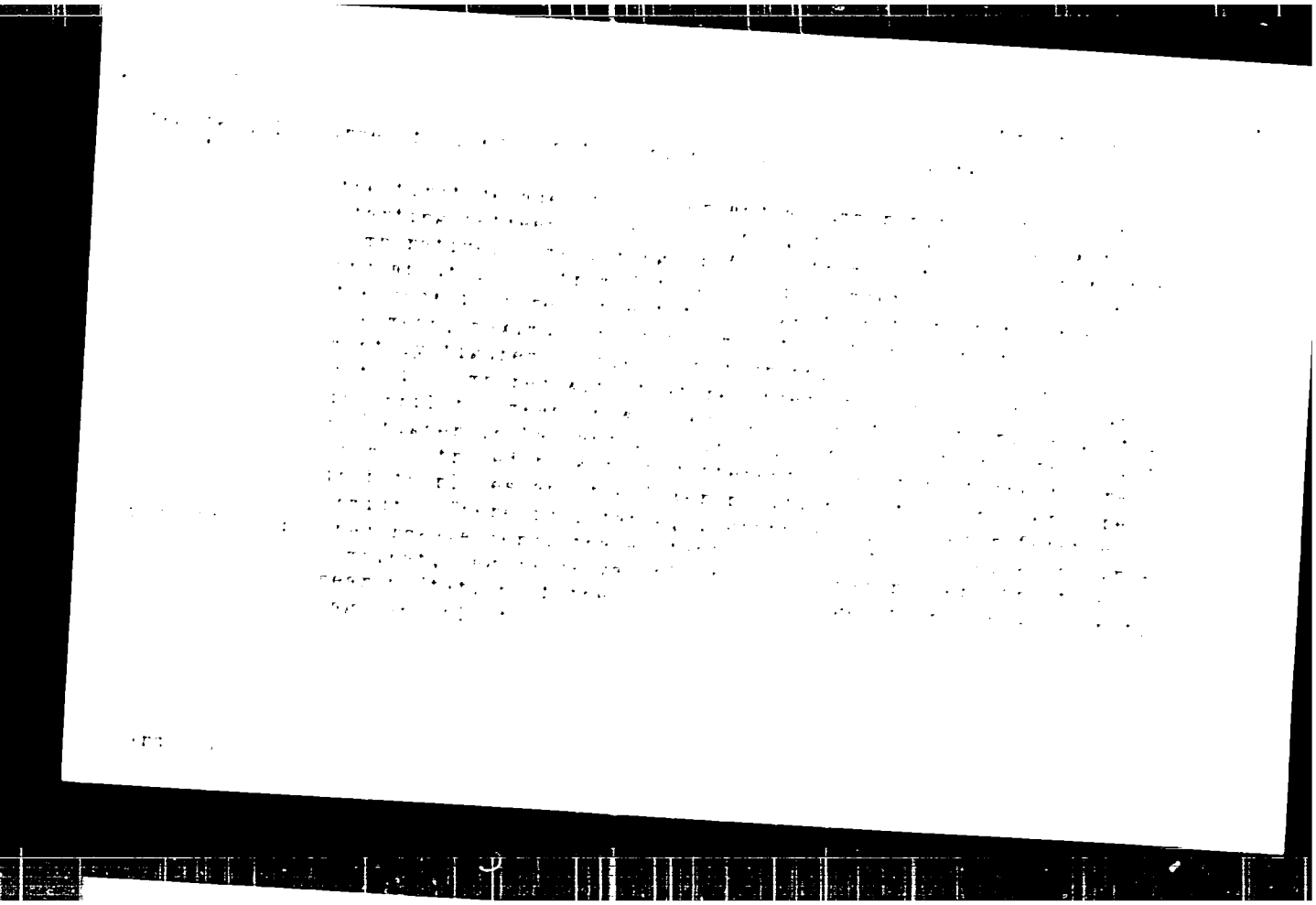
(Coal miners)

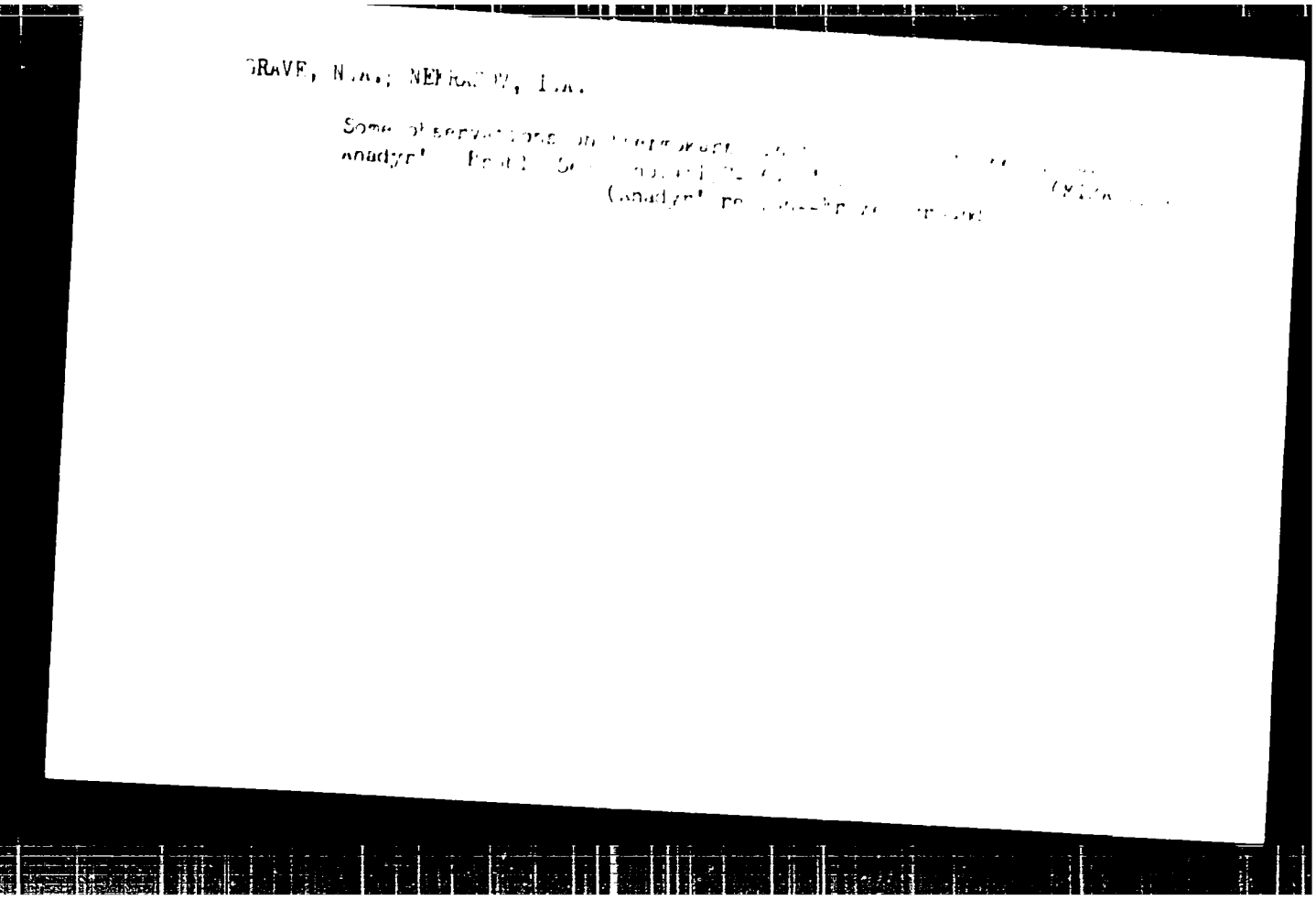
ZABOROVSKAYA, N.B., LIPKOV, L.T.; MARKOV, M.S.; NEKRASOV, G.Ye.

Genesis of the Cretaceous structures of the Taymyr Peninsula. Geotektonika no.6:54-62 N-D '65. (MIRA 19:1)

1. Geologicheskiy institut AN SSSR; Severo-Tekhnicheskoye geologicheskoye upravleniye. Submitted May 17, 1965.

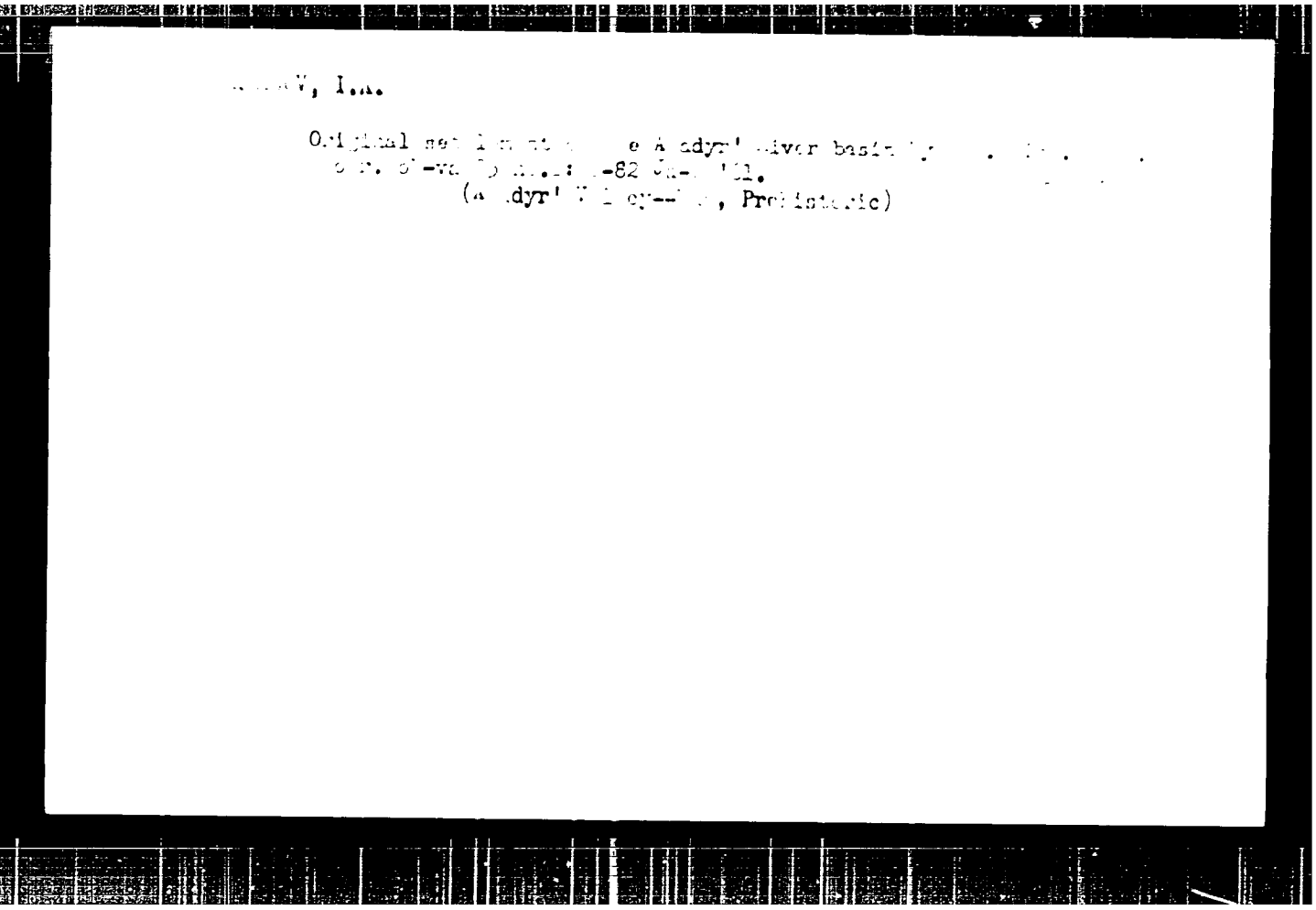






GRAVE, N.W.; NEPHEW, I.W.

Some observations on [illegible]
analyzer. Prod. Sci. [illegible]
(analyzer for [illegible]



NEKRASOV, I.A.

A new geocryological map of Alaska. Izv.Vses.geog.ob-va 93
no.5:448-450 S-O '61. (MIRA 14:1
(Alaska--Frozen ground--Maps)

NEKRASOV, I.A. (Yakutsk)

Polynyas on rivers of the Chukchi Peninsula. Meteor.i gidrol. no.8:35-38 Jl [i.e.Ag.] '62. (MIRA 15:7)
(Chukchi Peninsula—Ice on rivers, lakes, etc.)

NEKRASOV, I A.

Permafrost study, the science of frozen ground. Priroda 51 no.2:19-26 F '62. (MIRA 15:2)

1. Institut merzlotovedeniya im. V.A.Obrucheva Akademii stroitel'stva i arkhitektury SSSR, Moskva.
(Frozen ground)

NEKRASOV, I.A.

Origin and history of the Lake El'gygytgyn Basin. Geol. i geofiz. no. 1 47-59 '63. (MIRA 16:4)

1. Institut mineralotovedeniya imeni V.A.Obrucheva Sibirskogo otdeleniya AN SSSR, Yakutsk.
(El'gygytgyn Lake region—Geology)

S/026/63/000/001/006/007
A004/A126

AUTHORS: Nekrasov, I. A., Raudonis, P. A.

TITLE: Meteoric craters

PERIODICAL: Priroda, no. 1, 1963, 107 [illegible]

TEXT: After enumerating a number of meteoritic craters in various countries, the authors point out that not even every large-size meteorite results in the formation of a crater. Two types of craters are distinguished, namely impact craters and explosion craters. Moreover, the authors refer to the coesite synthesis in the USA in 1953 and the discovery of coesite in the Arizona crater in 1960, which proved that coesite can be a criterion for the identification of meteoritic craters on the Earth and, later, on the moon. In 1961, research work was started in the Soviet Union for identifying meteoritic craters and the authors report on a number of cases where, by the absence of coesite, crater-shaped depressions could be identified as ordinary tectonic formations. There are 3 figures.

Card 1/2

Meteoric craters

ASSOCIATIONS: 1. Institut merzlotovedeniya [illegible] the Sibirian Branch of the Academy of Sciences [illegible] Yakutsk.
2. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii (Institute of Geology of Mineral Deposits, Petrography, Mineralogy and Geochemistry) of the Academy of Sciences USSR, Moscow.

MYRTSYMOV, A.F.; NEKRASOV, I.A.

Ways of developing old Ural plants. Stal' 16 no.7:631-633 Jl '56. (MLRA 9:9)

1. Ministerstvo chernoy metallurgii SSSR.
(Ural Mountain region--Metallurgical plants)

AUTHOR: Nekrasov, I.A., Engineer. 133-11-3/19

TITLE: Soviet Blast Furnace Practice and the Production of Pig Iron (Sovetskoye domennoye proizvodstvo)

PERIODICAL: Stal', 1957, No.11, pp. 965 - 968 (USSR).

ABSTRACT: The state of the Soviet iron industry and the level of production at the beginning of 1941, as well as post-war developments are outlined. The damage caused by the last war was repaired in 1945-50, when the pre-war level of production was achieved. Further developments are characterised by the construction of larger furnaces, introduction of high top pressure, steam additions to blast with simultaneous increase in the blast temperatures (Magnitogorsk Combine 900 - 950 °C) and burden preparation. As a result of an increase in the mean working volume of blast furnaces, their mechanisation and general improvement in the technology of production, the labour productivity increased from 1 863 tons/man/year in 1953 to 2 444 tons/man/year in 1956. (On the Magnitogorsk Combine, it was 7 140 tons/man/year in 1956)

AVAILABLE: Library of Congress

Card 1/1

NEKRASOV I.A.

AUTHOR: Nekrasov, I.A., Engineer 28-58-1-15/34

TITLE: Coke Pig-Iron (Chugun peredel'nyy koksovyy)

PERIODICAL: Standartizatsiya, 1958, # 1, pp 42-43 (USSR)

ABSTRACT: The article deals with the new "GOST 805-57"-standard for pig-iron, which, since October 1957, has replaced the "GOST 805-49" and requires low manganese content in pig-iron for the production of open hearth steel. The Magnitogorsk and Kuznetsk Metallurgical Combines were the pioneers in this matter and achieved, respectively, 2.6% and 4% economy of coke, 3% and 4% higher productivity of blast furnaces, and about 20 rubles economy per ton of pig-iron. All plants of the Eastern region of the USSR followed suit. In October 1954, an All-Union conference of blast furnace specialists decided to try the method at one of the plants of the Southern USSR which works on highly sulfurous coke. The Central Institute of Iron Metallurgy also met with success at the Metallurgical Plant imeni Dzerzhinskiy in 1955. Blast furnace productivity increased by 3.45%, coke limestone, and manganese ore consumption decreased by 3.42%, 6.3%, and 80%, respectively. Practical experience has proved, that the manganese content in pig-iron does not have the

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technological importance in the open hearth melting process as was believed before. It was found at the imeni Dzerzhinskiy Plant, that in order to reduce the sulfur content in pig-iron, it is necessary to increase the basicity of slag, and an increased magnesia content in slag keeps it fluid. Additions of dolomitized limestone can be made for this purpose. Satisfactory results were also obtained in the open hearth scrap process (with 32% of pig-iron and 68% scrap) at the Zlatoust Metallurgical Plant. In 1955, an All-Union conference of steel smelters decided to accept low-manganese pig-iron, and a corresponding technological instruction for steel smelting was considered. The article includes two charts illustrating that the manganese content in the liquid metal of open hearth furnaces does not depend on the manganese content in pig-iron and does not change.
There are 2 charts.

ASSOCIATION: Gosplan RSFSR

AVAILABLE: Library of Congress

Card 2/2

SHUR, Aleksandr Borisovich; NEKRASOV, I.A., inzh., red.; ROZENTSVEYG, Ya.D., red. izd-va; EVENSON, I.M., tekhn. red.

[Smelting pig iron with a minimum consumption of coke] Vyplavka chuguna s minimal'nym raskhodom koksa. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 51 p. (MIRA 14:7)

(Cast iron--Metallurgy)

NEKRASOV, I.G., inzh.

Concerning A.P.Mamet's article "Relativ alkali content of feed water." Elek.sta.33 no.1:91 Ja '62. (MIRA 15:3)
(Feed water)
(Mamet, A.P.)

NEKRASOV, I.G., inzh.; UDACHINA, A.P., tekhnik

Determination of the salt content in feed water. Elek.sta. 33 no.2: 85-86 F '62. (MIRA 15:3)

(Feed water)

TSVETKOV, V.N.; BYCHKOVA, V.Ye.; SAVVON, S.M.; NEKRASOV, I.K.

Intramolecular interaction and segment anisotropy of chain molecules in solution. Vysokom. soed. 1 no.9:1407-1415 S '59.
(MIRA 13:1)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR i Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.
(Macromolecular compounds) (Propene) (Styrene)

TSVETKOV, V.N.; KALLISTOV, O.V.; KORNEYEVA, Ye.V.; NEKRASOV, I.K.

Stereoregularity and optical anisotropy of polypropylene.
Vysokom. soed. 5 no.10:1538-1542 O '63. (MIRA 17:1)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

PEREPELKIN, V.S.; ZABOLOTNOV, V.I.; VORTYNTSEV, D.I.; NEKRASOV, I.L.

Coli enteritis in adults and the carrier state of enteropatchgenic Escherichia coli. Zhur. mikrobiol., epid. i immun. 40 no. 8: 122-125 Ag '63. (MIRA 17:9)

NIKOLAYEV, Aleksey Vsevolodovich; NEKRASOV, I.L., otv. red.

[Seismic properties of soils] Seismicheskie svoistva gruntov. Moskva, Nauka, 1965. 183 p. (MIRA 18:7)

NEKRASOV, I. P., CHERNYY, G. G., BAM-ZELIKOVICH, G. M. (Moscow)

"Boundary Layer Separation at Supersonic Speeds"

report presented at the First All-Union [illegible] Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

NEKRASOV, I.Ya.

Genetic types of tin deposits in the Polousnyy and Selennyakh Ranges. Geol.rud.mestorozh. no.1:77-89 Ja-F '59. (MIRA 12:5)

1. Yakutskiy filial AN SSSR.
(Polousnyy Range--Tin ores) (Selennyakh Range--Tin ores)

NEKRASOV, I.Ya.

Gold potential of the northwestern part of the Verkhoyansk-Kolyma folded area. Nauch.soob. IAFAN SSSR no.2:10-15 '59. (MIRA 16:3)
(Yakutia--Gold ores)

NEKRASOV, I.Ya.

Specific features of the oxidation zone of sulfide ores in a polar climate. Uch. zap. RGU 44:219-221 '59. (MIRA 14:1)
(Polar regions--Sulfides)

NEKRASOV, I.Ya.

New type of beryllium mineralization. Geol. rud. mestorozh. no.2:32-43 Mr-Ap '60. (MIRA 13:8)
(Beryllium)

NEKRASOV, I.Ye.

Some petrographic problems of the Pre-Cambrian crystalline formation in the Selennyakh Range of northeastern Yakutia. Mat.po geol.i pol.iskop.IAk. ASSR no.2 85-105 '60.
(MIRA 15:10)

(Selennyakh Range--Petrology)

NEKRASOV, I.Ya.

Igneous activity and metallogenetic problems in the northwestern part of the Verkhoyansk-Chukchi folded region. Zakon.razm. polezn.iskop. 3:475-524 '60. (MIRA 14:11)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.
(Verkhoyansk Range--Ore deposits)
(Chukchi Peninsula--Ore deposits)

NEKRASOV, I.Ya.; YABLOKOV, K.V.

Basic metallogenic characteristics of the Ulakhan-Tas Range in northeastern Yakutia. Geol. rud. mestorozh. no.2:79-89 Mr-Ap '61. (MIRA 14:5)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR i Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR.
(Ulakhan-Tas Range--Ore deposits)

NEKRASOV, I.Ya.;

Conditions of formation of some tin deposits in northeastern Yakutia. Geol.rud.mestorozh. no.3:38-50 My-Je '61. (MIRA 14:6)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.
(Yakutia—Tin ores)

NEKRASOV, I.Ya.; ROZHKOV, I.S.; BORODYANSKIY, A.I.

Gold deposits in the northwestern Verkhoyansk-Chukchi folded area.
Geol. i geofiz. no.4:64-73 '61. (MIRA 14:5)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.
(Verkhoyansk Range region—Gold ores)
(Chukchi Range region—Gold ores)

NEKRASOV, I.Ya.

Tin deposit in keratinous shales. Trudy VITR no.4:240-247 '61.
(MIRA 14:9)

(Tin ores) (Shale)

NEKRASOV, I.Ya.; IPAT'YEVA, I.S.

Mineralogical and geochemical characteristics of metal-bearing granites as revealed by the Omchikandya massif. Mat.po geol.i pol.iskop.IAk.ASSR no.5:32-50 '61. (MIRA 15:7)
(Yakutia—Granite)

YABLOKOV, K.V.; NEKRASOV, I.Ya.

Geology of the Ulakhan-tas Range. Izv. AN SSSR. Ser. geol. 26 no.5: 58-65 My '61. (MIRA 14:5)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva i Yakutskiy filial Sibirskogo otdeleniya AN SSSR.

(Ulakhan-Tas Range--Geology)

NEKRASOV, I.Ya.

Mesozoic volcanism in northeastern Yakutia. Izv.AN SSSR. Ser. geol.26 no.10:84-96 O '61. (MIRA 14:9)

1. Institut geologii Yakutskogo filiala Sibirskogo otdeleniya AN SSSR, Yakutsk.

(Yakutia-- [illegible]noss)

NEKRASOV, Ivan Yakovlevich; SHATALOV, Ye.T., otv.red.; SMOLIN, P.P., red.izd-va; VOLKOVA, V.V., tekhn. red.

[Igneous activity and ore potential of the northwestern part of the Verkhoyansk-Chukchi fold area] Magmatizm i rudonosnost' severo-zapadnoi chasti Verkhoiano-Chukotsko. skladchatoi oblasti. Moskva, Izd-vo Akad.nauk SSSR, 1962. 339 p. (Akademiia nauk SSSR. IAkutskii filial, Yakutsk. Trudy. Seriia geologicheskaia, no.12). (MIRA 15:7)

(Yakutia—Rocks, Igneous) (Yakutia—Ore deposits)

NEKRASOV, I.Ya.; GAMYANIN, G.N.

Mineral associations and conditions governing the formation of cobalt deposits in northeastern Yakutia. Geol.rud.mestorozh. no.6:54-73 N-D '62. (MIRA 15:12)

1. Institut geologii Yakutskogo filiala Sibirskogo otdeleniya AN SSSR.
(Yakutia--Cobalt)

OZOLEVSKAYA, G.V.; NEKRASOV, I.Ya.

Petrography and petrochemistry of trachyrhyolites, trachyandesites, and monzonites of Polevaya Mountain (northeastern Yakutia). Trudy IAFAN SSSR.Ser.Geol no.11:3-15 '62. (MIRA 15:7)
(Alazeya Plateau—Petrology)

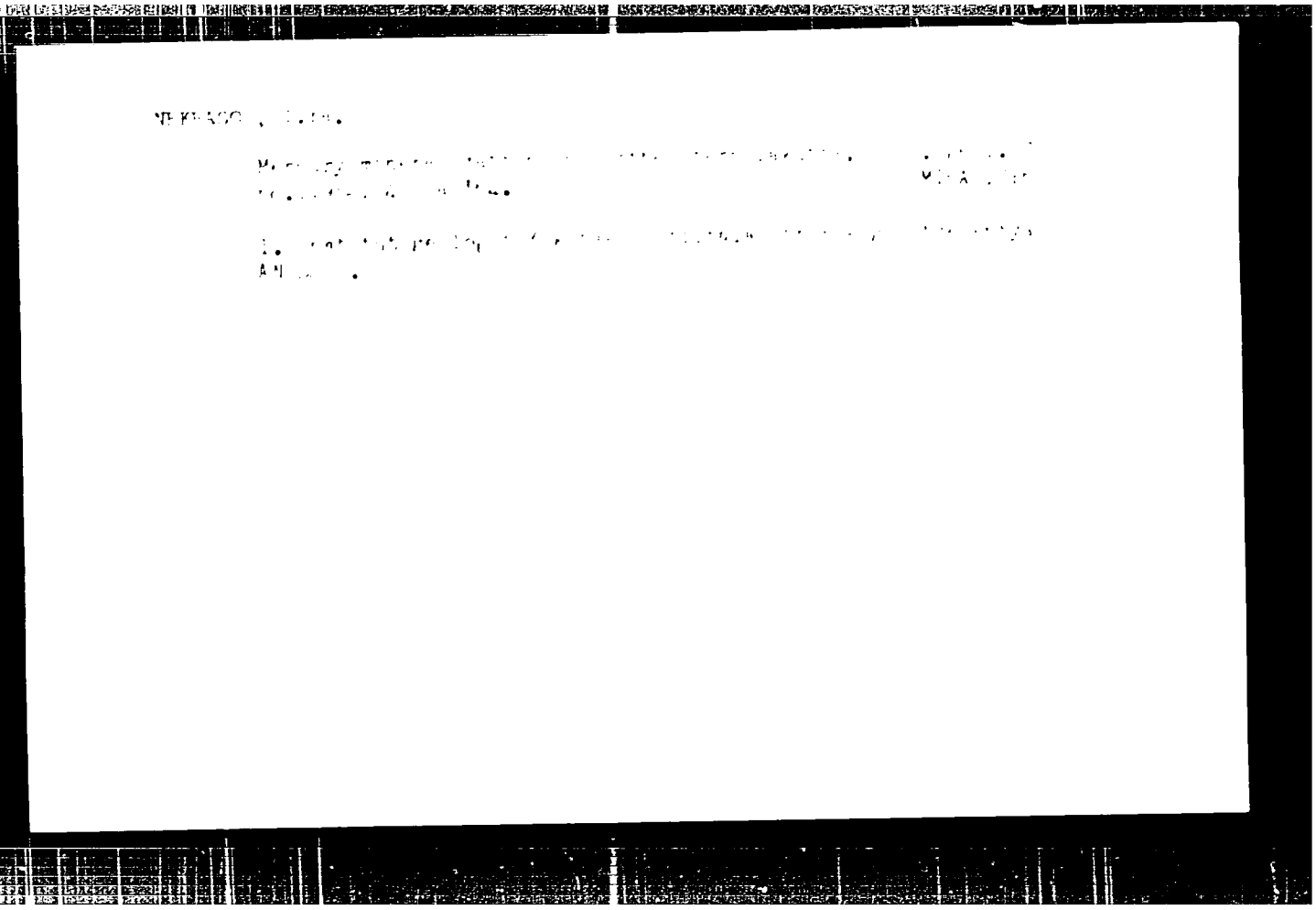
BROVKIN, A.A.; ALEKSANDROV, S.M.; NEKRASOV, I.Ya.

X-ray analysis of minerals in the ludwigite-vonsenite series.
Rent.min.syr. no.3:19-34 '63. (MIRA 17:4)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.

NEKRASOV, I.Ya.; PAKHOMOVA, K.S.

Distribution of rhenium in the rocks and molybdenites of skarn and hydrothermal deposits in northeastern Yakutia. Trudy IAFAN SSSR.Ser.Geol. no.16:49-55 '63. (MIRA 16:9)



L 33985-66

ACC NR: AR6017248 SOURCE CODE: UR/0058/65/000/012/D045/D045

AUTHOR: Kovaleva, L. T.; Nekrasov, I. Ya.; Arkhipenko, D. K.; Brovkin, A. A.; Grigor'yev, A. P.

TITLE: Study of minerals of the szaibelyite-sussexite series by infrared spectroscopy and x-ray diffraction methods

SOURCE: Ref. zh. Fizika, Abs. 12D380

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 604-610

TOPIC TAGS: mineral, ir spectroscopy, x ray diffraction study, absorption band

ABSTRACT: The authors studied minerals of the series $Mg_2B_2O_5(OH)_2$-$Mn_2B_2O_5(OH)_2$. The parameters of the unit cell were calculated for the entire series. A dependence of the parameters, position, and intensity of the absorption bands on the chemical composition is established. The possibilities are discussed of crediting the ir bands to vibrations of the B-O-R^{2+} and OH-Mg, OH-Mn groups. The formula $(Mg, Mn)_2B_2O_5(OH)_2$ is proposed in place of the formula $(Mg, Mn)HBO_3$, since it has been established spectroscopically that the B_2O_5 groups and free OH are present. These singularities are characteristic also of the natural minerals. [Translation of abstract]

SUB CODE: 20, 08/

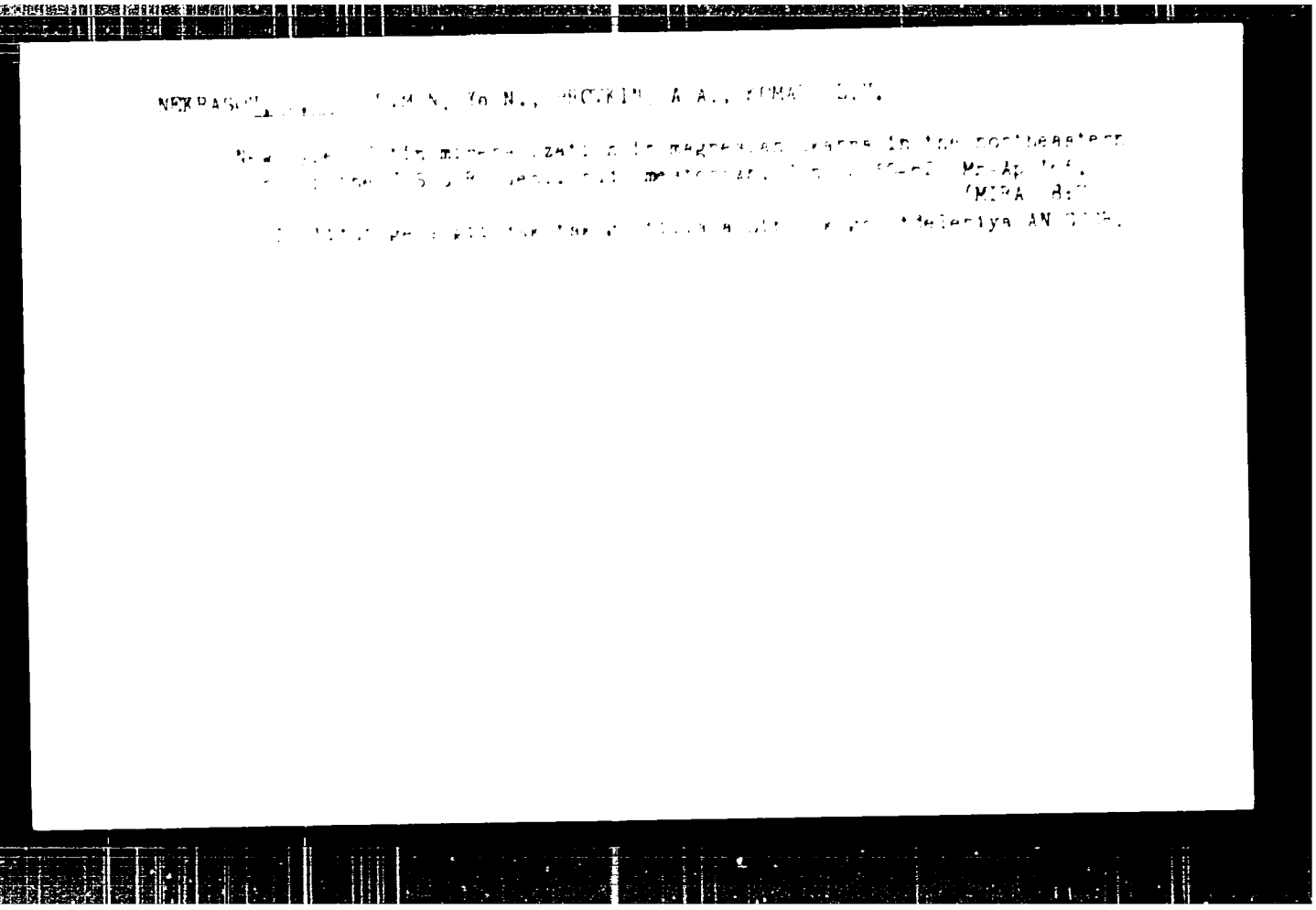
Card 1/1

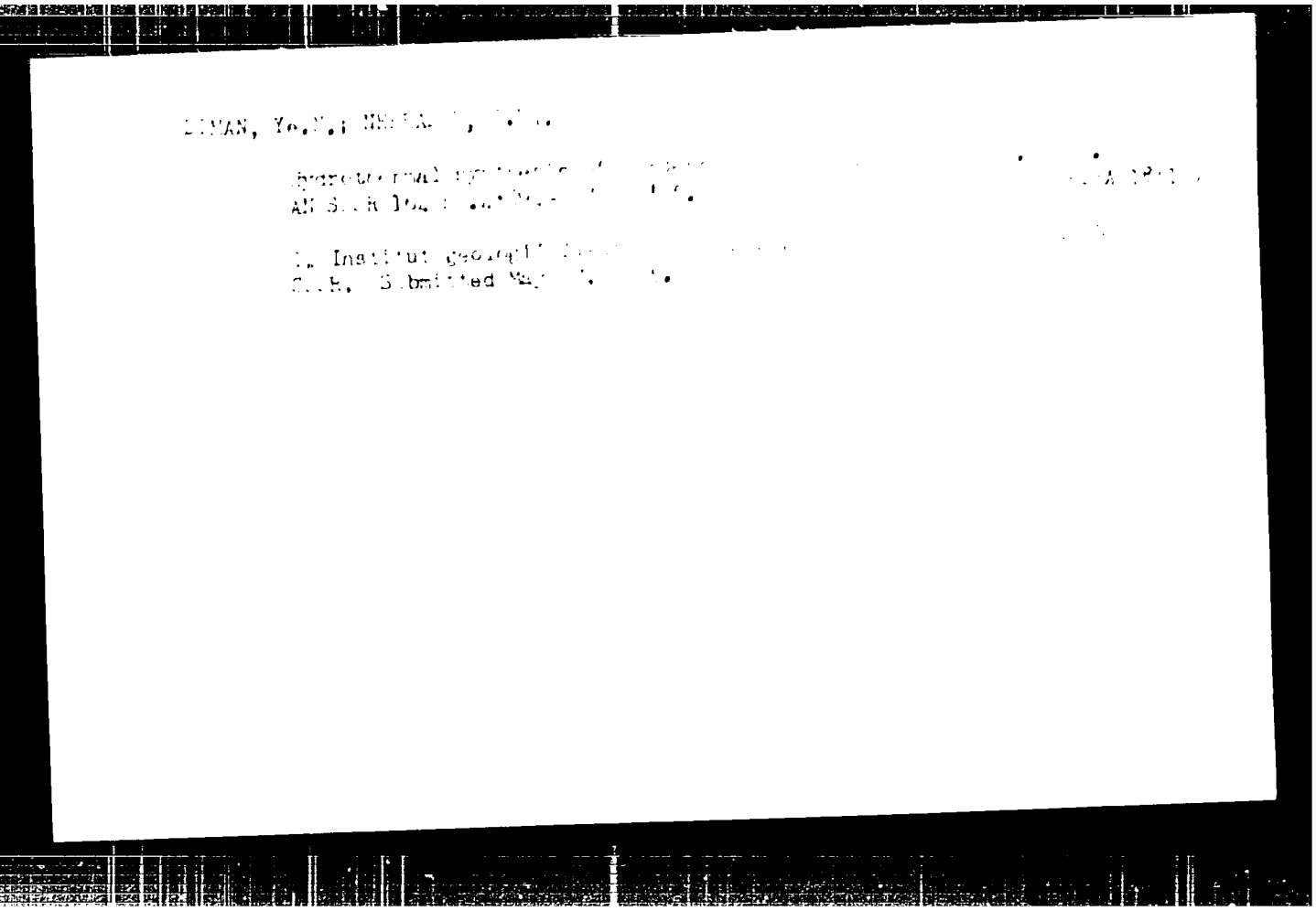
KOVALEVA, L.T.; NEKRASOV, I.Ya.; ARKHIPENKO, D.K.; BROVKIN, A.A.; GRIGOR'YEV, A.P.; KOMAR, L.V.

Study of the minerals in the series of ascharite-sussexite by infrared spectroscopy and electron diffraction methods. Zhur. strukt. khim. 6 no.1:79-82 Ja-F '65.

(MIRA 18:1)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk i Institut geologii Yakutskogo filiala Sibirskogo otdeleniya AN SSSR, Yakutsk. Submitted October 28, 1963.





KARLINSKAYA, M., kandidat tekhnicheskikh nauk, laureat Stalinskoy premii; MAGNICHKINA, V., nauchnyy sotrudnik; YEFREMOV, E.A.; NEKRASOV, K.A.; GAVRILOV, M.A., doktor tekhnicheskikh nauk, professor, consultant.

Time-impulse system of pressure telemetry for liquids and gases. Zhil.-kom. khoz. 3 no.3:5-8 Mr '53. (MLRA 6:5)

1. Akademiya kommunal'nogo khozyaystva, Laboratoriya avtomatiki (for Karlinskaya, Magnichkina, Efremov, Nekrasov). (Pressure gages)

NEKRASOV, K. A.,

GRITSKEVICH, I. A., Inzh. i, KARLINSKAYA, M. I., Laureat Stalinskoy Premii Kand. Tekhn. Nauk, YEFREMOV, Ye. A., Inzh., NEKRASOV, K. A., Inzh.

Akademiya Kommunal'nogo Khozyaystva IM. K. D. Pamfilova

Tsentralizovannoye upravleniye magistral'nymi setyami gorodskikh vodoprovodov

Page 57

SO: Collection of Annotations of Scientific Research Works [illegible]

[illegible]. Moscow, 1951

NEKRASOV, K., delegat XIII s"yezda professional'nykh soyuz

Important business of the trade unions. NTO 5 no.

1. Predsedatel' Volgogradskogo promyshlennogo obl
professional'nykh soyuzov.

NEKRASOV, K., doktor tekhn. nauk; TARASOVA, A., kand. tekhn. nauk; FEDOROV, A., kand. tekhn. nauk

Using heatproof concrete in lining tunnel kiln cars. Stroi. mat. 4 no. 7:9-11 Jl '58. (MIRA 11:7)

(Kilns)
(Concrete)

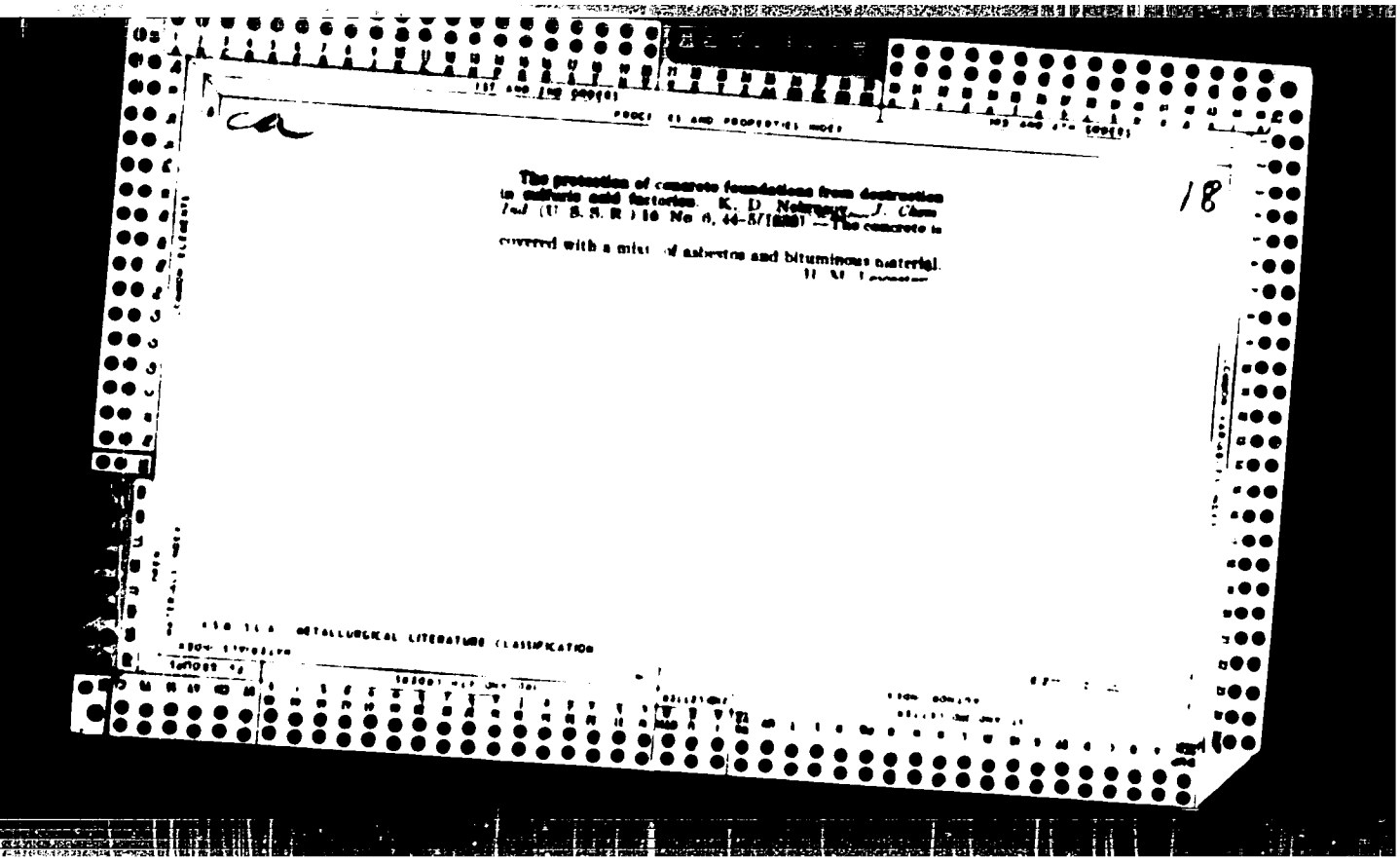
NEKRASOV, K., doktor tekhn. nauk.

Manufacturing concrete bricks for walls and floors in construction yards. Stroi mat. 4 no.8:36 Ag '58. (MIRA 11:9)
(Germany, West--Hollow bricks)

KARTASHOV, K.; NEKRASOV, K., doktor tekhn.nauk, prof.; MEL'NIKOV, F., kand.tekhn.nauk

Heat-resistant concrete and reinforced concrete. Stroitel' no.5:15 My '61. (MIRA 14:6)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kartashov). (Refractory concrete)



The protection of concrete foundations from destruction in sulfuric acid factories. K. D. Nekrasov. *J. Chem. Ind.* (U. S. S. R.) 16 No. 6, 44–5(1939). — The concrete is covered with a mixture of asbestos and bituminous material.

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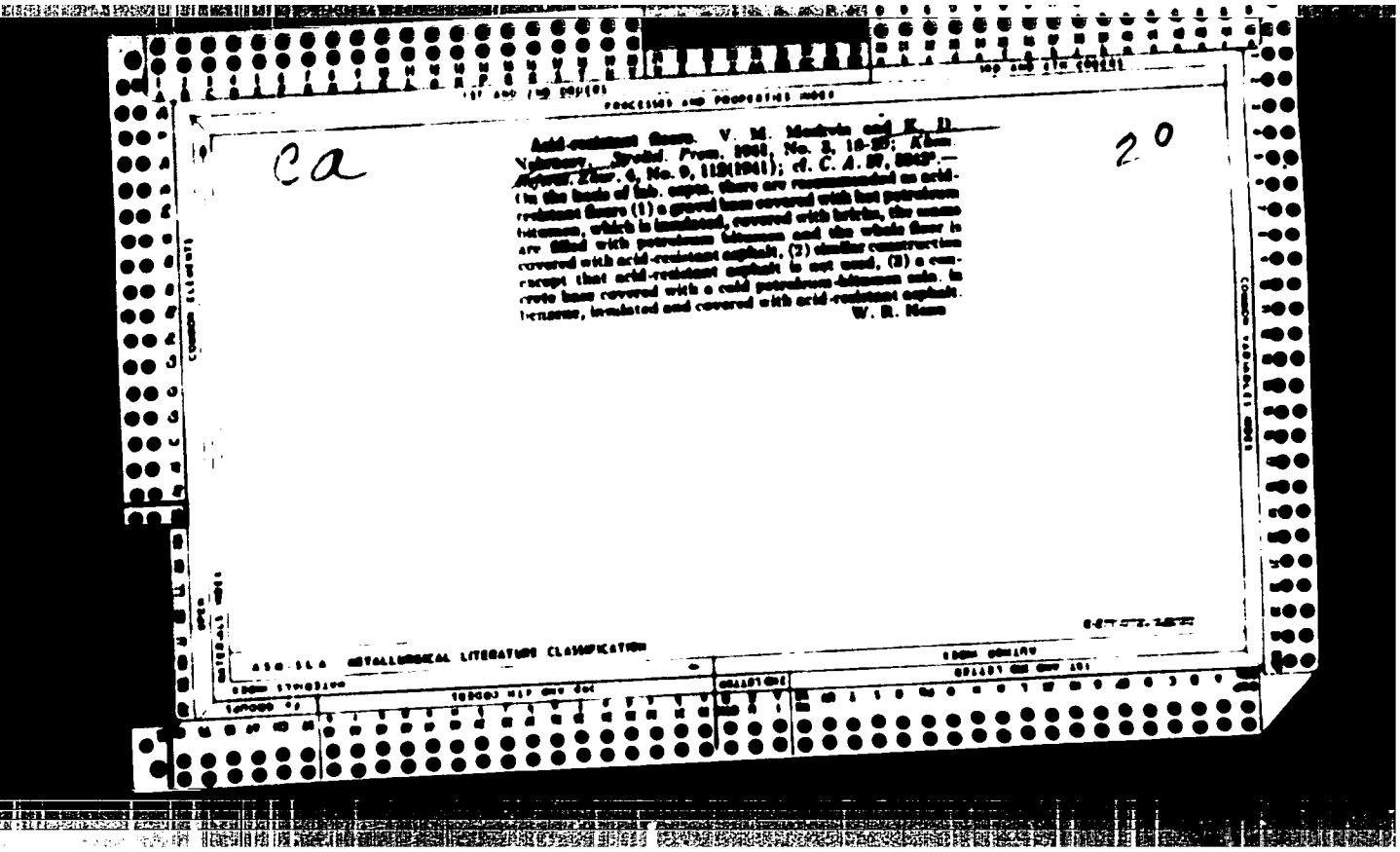
METALLURGICAL LITERATURE CLASSIFICATION



Ca

20

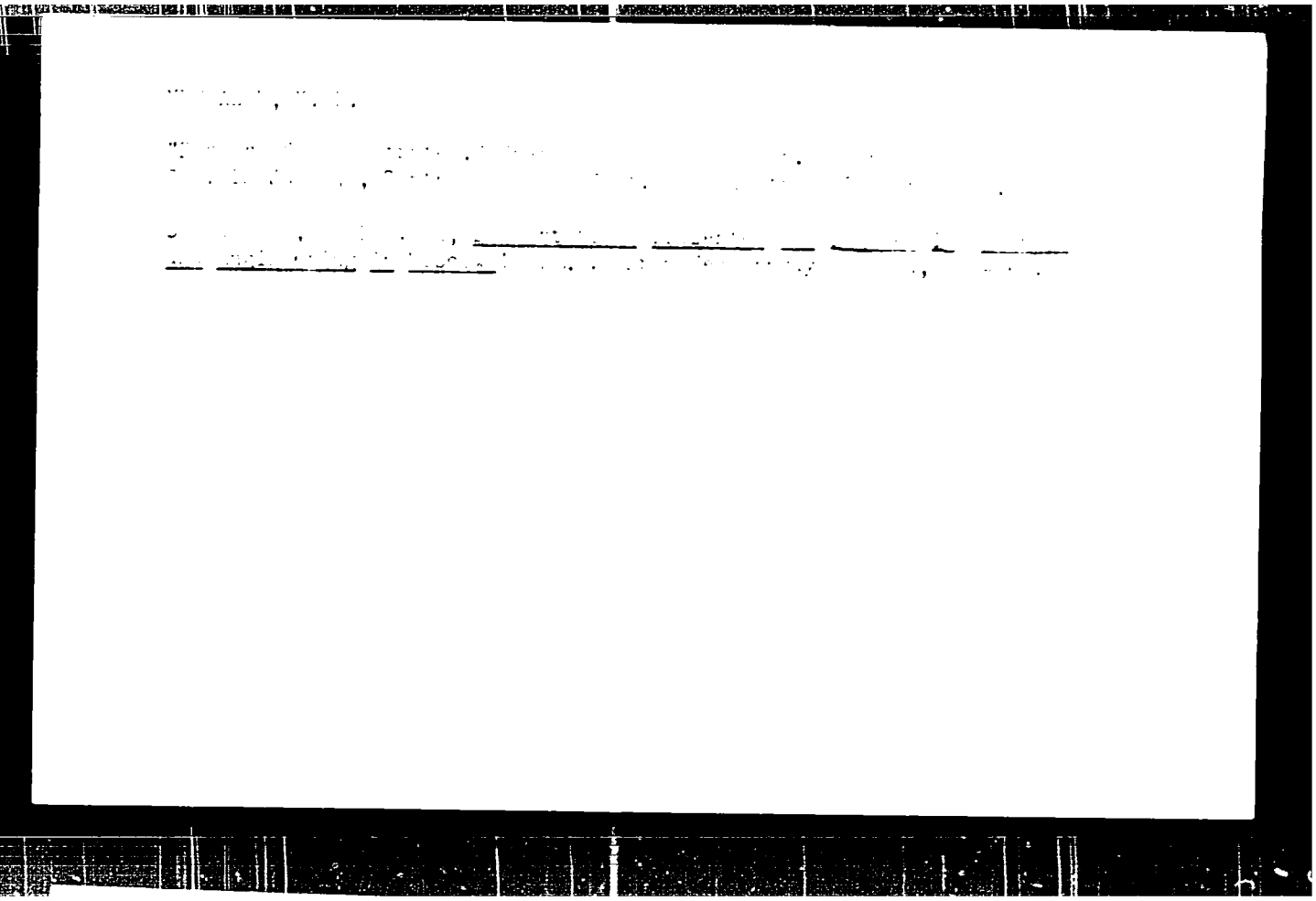
W. R. Haas

NEKRASOV, K. D.

Heat-resistant concrete as substitute for refractories

Nekrasov, U.S.S.R. People's Commissariat for [illegible] Research Inst for Ind Structures, Comm [illegible] Ind Structural Mat Pub 3, 39 pp [illegible]

were made on the prepn of heat resisting concretes with
the following binders: portland cement with
ground quartz sand or tripoli, portland
or without addn of ground brick and
with addn of ground quartz sand
gates used were
ag, and crushed brick. The properties
conditions of manufacture of the concrete
provisional regulations for its use as a substitute for
fractories are provided.



NEKRASOV, K. D.

26328 Ogneupornyy beton na portlandtsemente s mikronapolnitelyami. Sbornik nauch. Rabot po vyazhushchim materialam. M., 1949, s. 33-98 -- Bibliogr: 9 nazv.

SO: LETOPIS' NO. 35, 1949

MURASHEV, V.I., doktor tekhn.nauk, prof.; LUKASHKIN, N.I., laureat Stalinskoy premii; NEKRASOV, K.D., kand.tekhn.nauk; KRUGLYAK, S.I., insh.

New designs of foundations for blast furnaces. Stroi.prom. 27 no.10:1-9 O '49. (MLRA 13:2)
(Blast furnaces) (Foundations)

KRASOV, K. D.

The production and use of fire-resistant concrete in heating plants and furnaces Moskva, Gos. izd-vo stroit. lit-ry, 1950. 31 p. (51-24826)

TN677.N4

1. NEKRASOV, K.D. (Dr.), TARASOVA, A.P. (Engineer)

2. USSR (600)

4. Floors, Concrete

7. Heat resisting concrete for hot shop floors. St. rol. prom., 30, No. 4, 1952, D-P Tekhn. Nauk TSNIPS

9. Monthly List of Russian Accessions, Library of Congress, August, 1952, Unclassified.

Nekrasov, K.D.

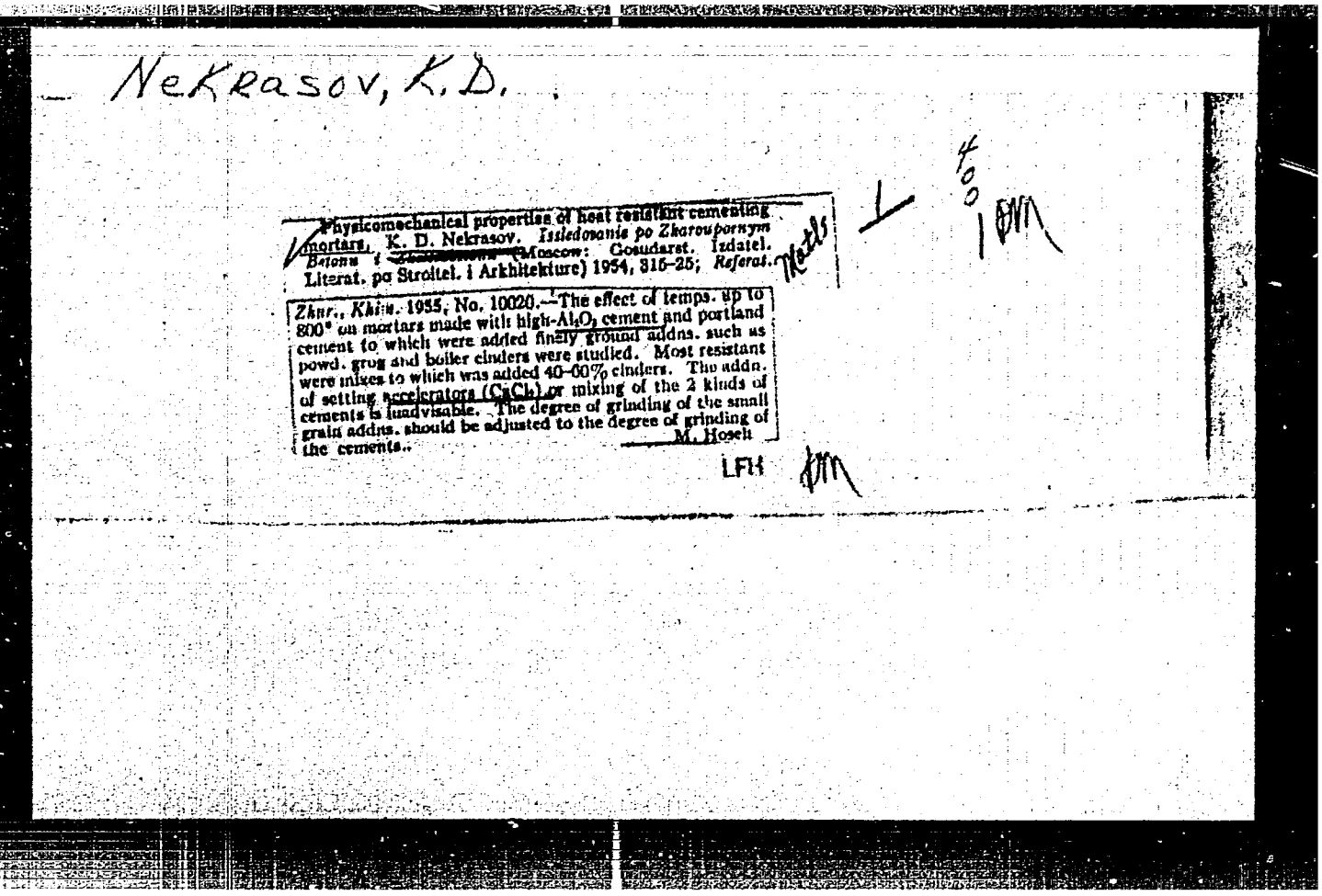
Refractory concretes, their properties, and use in heat installations. K. D. Nekrasov. *Promyshlennye Pechi* (Moscow) 1953, [illegible]. *Referat. Zhur., Khim.* 1955, No. 7950.—Concrete is destroyed at temps. above "200–60°" because Ca(OH)$_2$ which separates in consequence of concrete hardening is converted to CaO which slaked by moisture in the air or seepage water increases in vol. and destroys the concrete. The production of refractory concretes with a portland cement base is accomplished by adding mineral finely ground addns., such as grog, refractory clay, ground quartz sand, and the like, and the fillers of these concretes are substances resistant to high temps. such as grog, metallurgical slags, chromite, and the like. The properties of refractory concretes and their uses are outlined.

M. Hosch

NEKRASOV, K.D., doktor tekhnicheskikh nauk; DOLMATOV, V.Ya., kandidat tekhnicheskikh nauk; TARASOVA, A.P., inzhener

Heat-resistant concretes for factory floors exposed to heat. Rats. i izobr. predl. v stroi. no.95:3-8 '54. (MLRA 8:7)

1. Tekhnicheskoye upravleniye Ministerstva stroitel'stva.
(Floors, Concrete)



Nekrasov, K. D.

Physicomechanical properties of heat resistant cementing mortars. K. D. Nekrasov. *Issledovanie po Zharoupornym Betonu i* [redacted] (Moscow: Gosudarst. Izdatel. Literat. po Stroitel. i Arkhitekture) 1954, 316-25; *Referat. Zhur., Khim.* 1955, No. 10020.—The effect of temps. up to 800° on mortars made with high-Al_2O_3 cement and portland cement to which were added finely ground addns. such as powd. grog and boiler cinders were studied. Most resistant were mixes to which was added 40–60% cinders. The addn. of setting accelerators ($CaCl_2$) or mixing of the 2 kinds of cements is inadvisable. The degree of grinding of the small grain addns. should be adjusted to the degree of grinding of the cements.

M. Hoselt

LFH

NEKRASOV, K.D., dekter tekhnicheskikh nauk; OJAMAA, E.O., kandidat tekhnicheskikh nauk; ROSTOVTSEVA, M.P., redaktor; TOKER, A.M., tekhnicheskiy redaktor.

[Investigation of waste blast furnace slags as aggregates for heat-resistant concrete] Issledovanie otval'nykh domennykh shlakov kak zapolnitelei zharoupornogo betona. (Moscow. TSentral'nyi nauchno-issledovatel'skii institut promyshlennykh sooruzhenii. Nauchnoe soobshchenie, no.19) 1955 52 p. (MLRA 9:4)
(Slag) (Concrete)

BARANOV, Anatoliy Timofeyevich; [redacted]OV, K.D., nauchnyy redaktor; GURVICH, B.A., redaktor; LYUDKOVSKAYA, [redacted], tekhnicheskiy redaktor

[Foam concrete and foam silicates] Penobeton i penosilikat. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1956. 79 p. (MLRA 10:1)
(Lightweight concrete) (Silicates)

Translation from: Referativnyy zhurnal Metallurgiya No 8 1958 (USSR)

AUTHORS Nekr K D Ovsiann E G

TITLE The Utilization of Waste Blast Furnace Slags in the Manufacture of Fire Resistant Concrete Properties of heat resistant concrete based on chamotte aggregate and blast furnace slag

PERIODICAL V b Dneprovsk metallurg in-t Sbornik trudov 1956 No 2 pp

ABSTRACT A presentation of data from investigations conducted at the Dneprovsk Metallurgical Institute for the development and determination of the properties of heat resistant concrete based on chamotte aggregate and blast furnace slag from the blast furnaces of the plants of Kerch Magnitogorsk and Dneprodzerzhinsk The purpose of the investigations was to permit the manufacture of concrete for use at temperatures up to 700° The strength of the concrete was determined with a slag fineness corresponding to that of the concrete prepared with chamotte flour This fineness of the slag must be replaced with the same weight of slag ground to a fineness corresponding to 40 00

Card 1/2 percent of the weight of the cement

The Utiliz[illegible] W[illegible] B[illegible] F[illegible] S[illegible]

addition to the P[illegible] and cement [illegible] 400 [illegible] 300 [illegible] the [illegible] properties [illegible] the [illegible] amount of the fine ground [illegible] employed [illegible] fine ground [illegible] 30–300 percent of the weight of the cement [illegible] temperature [illegible] exceed [illegible] The [illegible] furnace [illegible] recommended. The [illegible] fine [illegible] degree [illegible] plastic deformation at temperatures of 600–800 [illegible] from the blast furnaces at the p[illegible] D[illegible] with particle [illegible]

[illegible] S

1. [illegible] appli[illegible]

Card 2/

NEKRASOV, Konstantin Dmitriyevich, doktor tekhn.nauk, prof.; YEGOROVA, N.O., red.izd-va; BOROVNEV, N.K., tekhn.red.

[Experience in using heatproof concrete in furnace units] Opyt primeneniia zharoupornogo betona v teplovykh agregatakh. Moskva, gos. izd-vo lit-ry po stroit. i arkhit., 1957. 43 p. (Akademiia stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. Nauchnoe soobshchenie, no.1). (MIRA 11:4)
(Concrete) (Refractory materials)

NEKRASOV, Konstantin Dmitriyevich, doktor tekhnicheskikh nauk, professor; GURVICH, B.A., redaktor; PYATAKOVA, M.D., tekhnicheskiy redaktor

[Heat resistant concrete] Zharouporuyi beton. Moskva, Gos.izd-vo lit-ry po stroit.materialam, 1957. 282 p. (MLRA 10:7)
(Concrete)

SOV [illegible]

Translation from Referativnyy zhurnal Metallurgiya, [illegible] (USSR)

AUTHOR: Nekrasov, K D

TITLE Refractory Concrete and Its Uses in High-temperature Aggregates (Zharoupornyy beton i yego primeneniye v teplovykh agregatakh)

PERIODICAL: V sb Materialy Soveshchaniya po vopr rabotu pechey tsvetn metallurgii i razvitiya prometallurg protsessov 1957, pp 477-480

ABSTRACT The author describes the physical and mechanical properties of refractory concretes (C) used in high-temperature aggregates The C were prepared with various binding agents Portland cement C with a fine-ground additive and a working temperature up to 1200°C, and waterglass C with Na fluosilicate and a temperature up to 1000° The author examines the effect of fine-ground additives ("micro-fillers") on concrete under the action of elevated temperatures and also the relation of the amount of micro-filler introduced to its type (fireclay, magnesite, chromite, loess, pumice, and others) Waterglass C with fireclay filler can be used in aggregates with a neutral or acid medium A description is given of the trends in development work on other C which are sturdier and more

Card 1/2

SOV [illegible]

Refractory Concrete and Its Uses in High-temperature Aggregates

resistant to higher temperatures, among them a refractory [illegible] of application of refractory C and its advantages over shaped refractories are adduced, namely: Furnace-construction cost is reduced by 40%, service life of the lining is increased 100%, etc. Results of the industrial operation of refractory C furnaces are quoted. A survey of the application of refractory C abroad is also given.

Y. O

Card 2/2

NEKRASOV, K.D., prof., doktor tekhn.nauk; SALMANOV, G.D., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; TARASOVA, A.P., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; PETROVA, V.V., red.izd-va; PEUSAKOVA, T.A., tekhn.red.

[Instructions for making and using heat-resistant concretes] Ukazaniia po prigotovleniiu i primeneniiu zharoupornykh betonov. Moskva, 1958. 48 p. (MIRA 12:3)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Laboratoriya zharoupornykh i khimicheski stoykikh betonov Nauchno-issledovatel'skogo instituta betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Nekrasov, Salmanov, Tarasova).
(Concrete)

NEKRASOV, K.D.

KRIVITSKIY, Mikhail Yakovlevich, kand.tekhn.nauk; VOLOSOV, Naum Semenovich, inzh.; NEKRASOV, K.D., doktor tekhn.nauk, nauchnyy red.; KRUGLOV, S.A., red.; GILENSON, P.G., tekhn.red.

[Plant manufacture of elements from foam cement and foam silicate] Zavodskoe izgotovlenie izdelii iz penobetona i penosilikata. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 158 p. (MIRA 11:5)

(Precast concrete)

NEKRASOV, K.D.; TARASOVA, A.P.; VOLODIN , V.Ye., red.; DRIBIN, L.P., red.; SHPAK, Ye.J., tekhn.red.

[Chemically stable heat resistant concrete made with soluble glass] Zharoupornyi khimicheski stoikii beton na zhidkom stekle. Pod red. V.E.Volodina. Moskva, Gos.nauchno-tekhn. izd-vo khim.lit-ry, 1959. 149 p. (Korroziia v khimicheskikh proizvodstvakh i sposoby zashchity, no.15) (MIRA 13:1)
(Concrete) (Soluble glass)

NEKRASOV, K.D., prof., doktor tekhn. nauk

Utilization of heat-resistant concrete in sodium hydroxide recovery furnaces in the Chinese People's Republic. Bum. prom. no.5:27 My '59. (MIRA 12:6)

1. Rukovoditel' laboratorii zharoupornykh i khimicheski stoykikh betonov Nauchno-issledovatel'skogo instituta betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR.
(China--Paper industry--Equipment and supplies)
(Concrete)

NEKRASOV, K.D., doktor tekhn.nauk, prof.; PRESNOV, V.I., kand.tekhn.nauk

Heat-resistant asbestos cement. Trudy NIIZHB no.7:[illegible].

(MIRA 11:11)

(Asbestos cement)

NEKRASOV, K.D., doktor tekhn. nauk, prof.

Using heatproof concretes. Nov. tekh. mont. i spets. rab. v stroi. 21 no.8:20-23 Ag '59. (MIRA 12:10)

1. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR.
(Concrete blocks) (Metallurgical furnaces)

NEKRASOV, K.D., doktor tekhn. nauk, prof.

Using heat-resistant concretes in industrial construction in China. Prom. stroi. 37 no.6:54-59 Je '59. (MIRA 12:8)

1. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury.
(China--Metallurgical plants--Design and construction)
(Concrete)

S/081/62/000/012/043/063
B156/B144

IK 5100
E,3-00

AUTHOR: Nekrasov, K. D.

TITLE: New developments in research into heat-resistant concrete and its uses.

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 417, abstract 12K374 (Sb. "Str-vo prom. pechey i dymovykh trub". M., 1960, 16 - 24)

TEXT: The work of USSR scientific research organizations on improving the technology of heat-resistant concretes (HRC) and their utilization is reviewed. A method of producing heat-resistant cements which up to 1000°C do not lose strength has been developed, based on portland and aluminous cements. This consists of introducing 0.5 - 3% of boron oxides (figures converted to elementary boron) into the aluminous and portland clinkers whilst roasting, and 1-7% of boron oxides into the fireclay, subsequently milling the clinker (30 - 70%) and fireclay (70 - 30%) together. A HRC efficient up to 1600°C has been produced on a portland cement base, using finely ground chromite or magnesite as binder and chromite as filler. HRC

Card 1/2

made by using phosphate binders, particularly alumophosphate, and various different fillers have been studied; these can be used at up to 1900°C. Research into the use of barium cements as binders, barium-aluminous cement in particular, is described. The compositions for heat-insulating and constructional HRC with waterglass (usable up to 800°C) or portland cement (usable up to 1000°C) as binder and with vermiculite or "karamzit" [Abstracter's note: presumably keramzit.] as filler have been found. [Abstracter's note: Complete translation.]

Card 2/2

NEKRASOV, K.D.; SAMOYLENKO, V.M.

Use of heat-resistant concrete for cathodic arrangements in aluminum electrolytic cells. Izv. vys. ucheb. zav.; tsvet. met. 3 no. 6:74-79 '60. (MIRA 14:1)

1. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR.
(Aluminum--Electrometallurgy)
(Electrolysis--Equipment and supplies)

NEKRASOV, K.D.; SALMONOV, G.D.

Use of refractory and heat-resistant concrete in industry. Ogneupory 25 no.5:219-221 '60. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva arkhitektury SSSR.
(Refractory materials) (Concrete)

YAKHMENEV, M.G., inzh.; MAKEYEV, K.D., prof., doktor tekhn.nauk, red.; SHPAYER, A.L., red.izd-va, I.MAT'YEV, V.A., tekhn.red.

[Heat-resistant asbestos cement] Zharoupornyi asbestotsement. Moskva, Gos.izd-vo lit.po stroit., arkhit.i stroit.materialam, 1961. 71 p. (Akademiia stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruktsii. Nauchnye soobshcheniia, no.1) (MIRA 14:4)

(Asbestos cement)

NEKRASOV, K.D., prof., doktor tekhn.nauk; MASLENNIKOVA, M.G., inzh.

Heat-resistant lightweight concretes. Bet. i zhel.-bet. no.2:63-67 F '61. (MIRA 14:2)

(Lightweight concrete)

S/600/61/000/022/002/002
D227/D304

AUTHOR Nekrasov, K.D. Doctor of Technical Sciences, Profes-

TITLE Stability of refractory concrete in aggressive media at elevated temperatures

SOURCE Akademiya stroitel stva i arkhitektury SSSR. Institut betona i zhelezobetona. Trudy, no.22, 1961. Zashchita stroitel nykh konstruktsiy ot korrozii. 151-156

TEXT The strength of refractory concretes depends on the density of water glass, particle size of filler, sodium fluosilicate content, water glass modulus and firing temperature. The temperature of firing was studied for a large number of specimens and it was found that in general heating to 300-400°C increased the strength, whilst firing at 400-600°C tended to reduce it, proportionally to the sodium fluosilicate content. Further heating up to 600°C, produced no change. The strongest concretes were obtained using chamotte as a filler and heating between 100-1000°C when compressive strengths of 200-400 kg/cm^2 were recorded. Concretes

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S/600/61/000/022/002/002
D227/D304

Stability of refractory ...

with chromite filler when heated to 400°C suffered a 20% reduction in strength as compared with specimens heated to 110°C. Specimens with magnesite filler showed a gradual deterioration of strength between 100 1100° C, due to the thermal expansion of the filler. Dunite and talc fillers proved unsatisfactory while andesite gave similar results to chamotte. In the majority of refractory concretes the strength tended to increase when heated to 1000°C. The temperature limit for concretes based on water glass was determined by the temperature of deformation under 2 kg cm loads. The temperature of the onset and end of deformation was found to depend on the nature of filler, sodium fluosilicate content and water glass modulus. The highest temperature, under the above load was with stood by specimens containing crushed magnesite brick filler. Only 4% deformation was observed at 1280°C and the softening occurred within a 240oC interval. By increasing the sodium fluosilicate content from 10 20% and reducing water glass modulus from 2.8 2.1 it was possible to lower the temperature of deformation by 100°C. The air setting of the refractory concrete containing water glass occurs on heating to 200°C

Card 2/3

Stability of refractory ...

at higher temperatures expansion occurs and the coefficient of thermal expansion depends on the texture of the filler. The moduli of elasticity of the refractory concretes were found constant when the temperature of drying was below 600°C. Gas permeabilities were found to be 0.006 for chamotte and 0.013 for slag-containing unfired concretes. Most concretes based on water glass were found to resist mineral acids (except HF) and corrosive gases such as SO_2, but not alkali and carbonate solutions, nor a prolonged action of water and steam. The resistance to water and steam may however be increased by introducing organosilicons in the form of emulsions or GKZh solutions in quantities of 5% based on water glass. At below zero temperatures concrete mixtures based on water glass tend to freeze rather than set. However, their strength is unaffected if allowed to thaw and then set at 15°C. Optimum temperature of hardening is 15-20°C.